Learning Difficulties in Early Children

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Abstract

Learning difficulties are deficiencies that do not appear outwardly. Learning disabilities cannot be recognised in a physical form that is different from people who do not experience learning difficulties. Learning disorders faced by children are grouped into 4 criteria, namely cognitive maturity, low attention, hyperactivity, and mental retardation. Learning difficulties that usually occur in children are dyslexia (difficulty reading), dyscalculia (difficulty with arithmetic), dysgraphia (difficulty writing) and dipraxis (difficulty moving in a coordinated manner).

Key words: Early Childhood, Learning Difficulties.

Introduction

The definition of early childhood according to law no. 20 of 2003, the national education system, which is called early childhood, is children aged 0–6 years old, while according to experts are children aged 0–8 years old.

Early childhood education is a process of growth and development of children aged birth to six years as a whole, which includes physical and non-physical aspects, by providing stimulation for physical, spiritual, motor, intellectual, emotional, and social development that is appropriate and correct so that children can grow and develop optimally (Pratiwi et al., 2021). During this time, there is a maturation of physical and psychological functions that are ready to respond to stimuli given by the environment (Prahesti & Fauziah, 2021). That is why proper stimulation is needed to support the development and growth of children.

Learning disorders or learning difficulties in children are problems that affect the brain's ability to receive, process, analyse, or store information. As a result, the child's learning process becomes hampered. According to (Bahharudin, 2014), children who have experience learning difficulties will encounter real difficulties; it is the presence of neurological dysfunction, difficulty in academic tasks, gaps in the analysis of achievements achieved, and various environmental influences.

Various attempts were developed by researchers to overcome learning difficulties in students, as was done by Idris in his article about overcoming learning difficulties with a cognitive psychology approach. (Idris, 2009) according to him, many people think that children who get low scores are stupid and fail. Because maybe the child is experiencing interference with one of his abilities and is unable to handle the problem. Learning difficulties, if not handled properly and correctly by teachers and parents, will have a negative impact on the development and life of students in the future. Usually, children who have learning difficulties can solve their problems well, but behind that, children who
have learning difficulties are often considered stupid, morons or failed children. This is what makes children who experience learning difficulties even worse under pressure that comes from outside themselves (Husein, 2020).

**Method**

This study uses a type of library research, which collects data from various literature. Literature that can be researched is in the form of books, documentation materials, magazines, journals and newspapers related to research material. Literature research is emphasised to find various theories, laws, propositions, principles, opinions, ideas and others that can be used to analyse and solve the problems under study. This library research is used by researchers to solve conceptual-theoretical problems, Early Childhood Learning Difficulties. This research is research and development

**Results and Discussion**

**Definition Of Learning Difficulty**

Learning difficulties are learning disabilities; the term for the word is minimal brain dysfunction; there is another term, namely neurological disorders. According to Hammill (1981), learning difficulties are various forms of real difficulties in listening, speaking, reading, writing, reasoning, and/or arithmetic activities. The disorder is an intrinsic disorder that is thought to be due to central nervous system dysfunction. Learning difficulties can coexist with other disorders (e.g. sensory disturbances, social and emotional barriers) and environmental influences (e.g. cultural differences or inappropriate learning processes). These external disturbances are not a factor causing learning difficulties, although they are a factor that exacerbates existing learning difficulties (Suryani, 2010).

The United States government, based on the 1997 IDEA Amendments, defines learning difficulties as a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language, which can manifest as an inability to listen, think, speak, read, write, spell or perform mathematical calculations. This disorder includes conditions of perceptual disability, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia, but does not include students with learning disorders caused by visual, auditory or motor disabilities, mental retardation, emotional disorders or deficiencies caused by the environment or culture (Salkind, 2002: 241).

There are several causes of learning difficulties found in the literature and research results (Harwell, 2001), namely:

a. Hereditary factors
b. Disturbances during pregnancy, during childbirth or premature
c. The condition of the fetus that does not receive enough oxygen or nutrition and or the mother who smokes, uses drugs (drugs), or drinks alcohol during pregnancy.
d. Trauma after birth, such as a very high fever, head trauma, or drowning.
e. Recurrent ear infections in infancy and toddlers. Children with learning difficulties usually have a weak immune system.
f. Early childhood is often associated with aluminium, arsenic, mercury, and other neurotoxins (Suryani, 2010).

**Dyslexia**

**Definition of Dyslexia**

Dyslexia is a disorder of the learning process; people who have dyslexia will experience difficulties in spelling, reading and writing (Supena & Muawwanah, 2021). Widyorini and Van Tiel stated that dyslexia is a reading disorder that interferes with the ability to recognise letters, numbers and symbols or punctuation used in sentences, dictation, reading techniques, reading comprehension, and using language (Widyorini & Van Tiel, 2017). If normal children can read from the age of 6–7 years, this is not the same as children with selection until they are 12 years old; sometimes, they still cannot read fluently. This difficulty can be detected when children enter elementary school education. From some of the definitions above, it can be concluded that dyslexia has difficulties in language, both recognising or distinguishing letters, spelling, and delays in learning.

**Cause of Dyslexia**

Dardjowidjojo also stated (In Lidwina 2012, 13–14) dyslexia is caused by the following three factors, educational, psychological and biological factors, but the main cause is the brain. The following is an explanation of these factors:
a. Educational Factors
  Dyslexia is caused by the method used in teaching reading, especially the "whole-word" method, which teaches words as a unit rather than teaching words as the sound form of a written letter one by one. Indeed, it will take longer, but even that is for fluency in recognising letters for dyslexic children.

b. Psychological factors
  Some researchers attribute dyslexia to psychological or emotional disorders as a result of lack of discipline, not having parents, changing schools frequently, lack of cooperation with teachers, or other causes. Stress may also cause dyslexia, but clearly, stress can make it worse.

c. Biological factors
  Some researchers believe that dyslexia is the result of dysfunction in certain parts of the brain. The development will experience differences with children in general. But that does not mean this is a disability or a mental disorder. Dyslexic children differ only in the function of the parts.

  Dyslexia is not a disorder that affects children’s intelligence, children with dyslexia are not stupid, but they are only slow in the learning process, which causes them to lag behind their peers. Deputy Chairperson of the Indonesian Dyslexia Association, Vitriani Sumarlis, said that "dyslexic children are not suitable for entering SLB; SLB is more precise for children with other special needs such as mentally retarded or deaf. The school accommodates children with below normal intelligence or IQ below 62, while dyslexic children have an average IQ of 90 to 110. Dyslexic children are prone to stress due to academic failures, then children with dyslexia have the same or more intelligence than other children of his age.

Characteristics of Dyslexia
  Physically a child with dyslexia will look normal, but the difference will be seen when dealing with language matters. Here are some characteristics of children who suffer from dyslexia (Hidayat, 2019).
  a. Reading very slowly and seems unsure of what he is saying.
  b. Using his finger to follow his eyes moving from one text to the next.
  c. Missing some syllables, phrases or even lines in the text.
  d. Adding words or phrases that are not in the text being read.
  e. Reverse the arrangement of letters or syllables by entering other letters.
  f. Mispronouncing words with other words, even though the word being replaced, does not have an important meaning in the text being read.
  g. Make up your own words that have no meaning.
  h. Ignore punctuation.

Types of Dyslexia
  In (Loeziana, 2017, pp. 52–54) explains that there are two types of dyslexia, namely the auditory type (hearing) and the visual type (vision); the following is the explanation:

  a. Auditory Type (Auditory Processing Problems)
    The ability to distinguish between the similar sounds of spoken words or to distinguish between the parts of sentences that are spoken. He finds it difficult to distinguish the words he hears and feels the similarity of hearing the sounds of the words spoken. cannot distinguish words: frog, brother, and father. Difficulties in auditory analysis and synthesis; for example, the word "ibu" is not condensed into "i-bu". Difficulty with spelling. Auditory difficulties with sounds or words. If you are given a letter, you cannot remember the sound of the letter or word, or if you see a word, you cannot express it even though you understand the word. Reading silently is better than reading orally. Sometimes accompanied by disturbances of the auditory sequence. Children tend to do visual activities. Dyslexic children with the auditory type are more helpful in learning if there are more activities that use visuals rather than just listening without any depiction.

  b. Visual Type
    Dyslexic children with the visual type rely more on their hearing than their sight; by listening, they will find it easier to understand what they are learning. Najib Sulhan in (2006) book "Character Development in Children Teacher Learning Management Towards an Effective School", there are symptoms that belong to the visual type, which are as follows:
    1. Inversely dependent, for example, b reads d, p reads g, u reads n, m reads w and so on.
    2. Difficulty discriminating, confusing letters or similar words.
    3. Difficulty following and remembering visual sequences. If you are given printed letters to compose words, you have difficulty; for example, the word "ibu" becomes "iub".
    4. Impaired visual memory.
    5. Perception speed is slow.
7. Bad reading test results
8. Usually better in auditory activity ability.

It can’t imagine how difficult it is for a visual–type dyslexic child to read. They need more time and must constantly adapt their vision to reading. Therefore this will have an impact on the level of concentration and behaviour and can affect their work results. Proper guidance for dyslexic children can help develop their potential.

**Dyscalculia**

*Definition of Dyscalculia*

Dyscalculia is a condition where it is difficult for a child to learn mathematics, such as arithmetic and is said to have dyscalculia. As a simple example, children have difficulty doing simple addition and subtraction and have difficulty remembering numbers. Children who have dyscalculia have different signs or characteristics for each child, but children who have dyscalculia tend to be unable to recognise numbers.

The main cause of dyscalculia is a disorder of the central nervous system. In addition, the causes of dyscalculia, according to (Suzana & Maulida, 2019), are genetic factors and psychological factors. The genetic factor in question is the genetic factor of the parents. This is evidenced by a study conducted by Berrett, who stated that dyscalculia is often associated with ADHD (Attention Deficit Hyperactivity Disorder) sufferers because, according to his research, a quarter of dyscalculia sufferers have ADHD. While psychological factors can be caused by trauma, phobia of mathematics or fear when doing mathematics. On the other hand, intellectual factors also play an important role in the cause of dyscalculia. Student intelligence that has been formed cannot be separated from the ability of a teacher in the process of giving experience. This required learning methods and procedures that helped shape student intelligence. Environmental factors also affect students’ abilities. The intended environment is the home environment, school, and surroundings.

**Types of Dyscalculia**

According to Sylvia Franham–Doggory (Suzana & Maulida, 2019), there are 4 types of dyscalculia disorders, including:

a. **Type 1: Weak in logic**
   Students are not able to explain about a shape and size. For example, he is unable to distinguish sizes and has difficulty explaining sizes (Length, width)

b. **Type 2: Weak in planning**
   In this case, students have difficulty in analysing a simple problem resulting in these students having difficulty solving problems.

c. **Type 3: Diligent in the task**
   In this type, children show that they are diligent and active in completing their tasks, but most are always wrong or never right in doing them

d. **Type 4: Inability to count simply**
   This last type is very clearly written if the child has difficulty in counting, such as adding and subtracting numbers that are still in a simple form.

It is not easy to treat children who have dyscalculia, but there are several ways for children to help understand children who have this disease, including:

a. Make a game based on mathematics
b. Let the children count using their hands / scribbles on paper
c. Often invite children to learn mathematics starting from simple things, for example introducing numbers to children. In this case, number cards with interesting patterns are needed so that children are also interested
d. Consultation with a doctor / expert
e. Look for tutors who can help and understand the world of children so that children don’t get bored while studying

**Dysgraphia**

*Definition of Dysgraphia*

Dysgraphia is a learning disorder characterised by a person’s inability to write letters or words correctly. People with dysgraphia experience problems with their nervous system which affect their fine motor skills, specifically the ability to write.

Dysgraphia can be accompanied by dyslexia (difficulty reading) or not. Children who have dysgraphia but can read are often accused of being lazy or not wanting to learn, even though that is completely wrong. It’s important to
know that heredity plays a role in this condition, as do most learning disorders. If a person has dysgraphia or a family member has it, it’s very likely that one of their children will too.

Causes of Dysgraphia Apart from heredity (which, of course, has been carried in a person’s DNA), dysgraphia is also caused by several other things:

a. Brain injury.
   It can be caused by an accident, hard impact, or tumour. This condition usually occurs in adults.

b. The child's mental health condition
   Children who have ADHD, ADD, autism, or dyslexia can also experience dysgraphia as a symptom.

Types of Dysgraphia

a. Motor Dysgraphia
   It can be caused by an accident, hard impact, or tumour. This condition usually occurs in adults.

b. The child's mental health condition
   Children who have ADHD, ADD, autism, or dyslexia can also experience dysgraphia as a symptom.

Signs and Symptoms of Dysgraphia

The symptoms of dysgraphia are often overlooked or attributed to students who are lazy, unmotivated, uncaring or have delayed visual–motor processing. To be diagnosed with dysgraphia, a person must have a cluster, but not necessarily all, of the following symptoms:

a. Finger cramps when writing
b. Deleting posts too often
c. Copying speed is not efficient
d. No details when writing
e. Inconsistent font size
f. Writing Hard to read
g. Handwriting interferes with spelling
h. Often feel sick when writing

Dysgraphia Features

There are several special characteristics of children with this disorder. are as follows:

a. Slow at writing
   1. Write in reverse, such as the letter "b" is written "d", the letter "m" is written "w".
   2. There is an inconsistency in the form of the letters in the writing.
   3. When writing, the use of capital letters and lowercase letters is still mixed.
   4. The size and shape of the letters in the writing are disproportionate
   5. Children seem to have to try hard when communicating an idea, knowledge, or understanding through writing.
   6. It is hard to hold a ballpoint pen or pencil steadily; the way you hold the writing instrument is often too close, even almost sticking to the paper.
   7. Talking to yourself while writing or even paying too much attention to the hand you use to write
   8. The way of writing is inconsistent, not following the proper and proportional lines.
   9. Still experiencing difficulties even though they are only asked to copy examples of existing writing (Dewi, 2022)

Dyspraxia

Definition of Dyspraxia

Dyspraxia is a brain disorder that causes the sufferer to be unable to determine the coordinates of directions and body movements properly. People with this disorder have difficulty carrying out simple activities that normal humans do, such as dressing, tying shoelaces, and even holding a pencil. Dyspraxia comes from the word "dys", which means not easy or difficult, and "praxis", which means to act, to do.

Other names for Dyspraxia are Development Coordination Disorder (DCD), PerceptuoMotor Dysfunction, and Motor Learning Disability. In earlier times, it was better known as Clumsy Child Syndrome. According to research, this disorder sometimes runs in families, and its symptoms overlap with other similar disorders such as dyslexia.

According to medical research, dyspraxia is a child’s disorder or immaturity in organising movements due to the inability of the brain to process information so that messages are not fully or correctly transmitted. Dyspraxia affects planning what to do and how to do it. This causes difficulties in thinking, planning and performing motor or sensory tasks.
Causes of Dyspraxia

According to Belinda Hill, a speech pathologist at the Australian Dyspraxia Support Group and Resource Center Inc. in New South Wales, dyspraxia is not a musculoskeletal or intellectual disorder, although it affects language and speech as a result. Dyspraxia problems occur when the brain tries to order what to do, but then the brain’s command signals are scrambled so that the muscles cannot read these signals. Families living with dyspraxia children are often usually not aware of the child’s condition right away. This causes impractical children to have low self-confidence due to the disorder they are suffering from and the ignorance of the family.

Dyspraxia children are also prone to depressive disorders and have difficulties in emotion and behaviour. The workings of human motors, according to Richard Haier, professor of neuroscience from the University of California at Irvine, are mostly function by the limbic temporal region (in men) and the gyrus cingulate (in women). Thus, children or individuals can experience dyspraxia if there is an imbalance between the two. Besides patterns of creativity, healing, problem-solving, to enjoying the perfect relationship, which is entirely in the work of the right brain.

Types of Dyspraxia

a. Ideomotor dyspraxia
   Which is characterised by a lack of ability to perform simple, practical movements, such as cutting, brushing teeth, or using a spoon. His movements seem awkward and less flexible. Dyspraxia is an obstacle to speech development.

b. Ideational dyspraxia
   Which is characterised by the child’s ability to perform complex movements but is unable to complete them as a whole, especially for unsettled environmental conditions. The difficulty lies in the sequence of movements; children are often confused about an activity, such as following the rhythm of music.

c. Constructional dyspraxia
   Which is characterised by the condition of children who have difficulty in carrying out complex movements related to shapes, such as arranging blocks and drawing. Conditions like this will affect the ability of children to write.

d. Oral dyspraxia
   This is identified with the difficulties of children who experience language development disorders caused by disturbances in the concept of motor movement in the mouth. In this case, the child is less able to imitate movements such as sticking out and moving the tongue, puffing out the cheeks, and so on (Introduction, 2011)

Conclusion

Learning difficulties are learning disabilities; the term for the word is minimal brain dysfunction; there is another term, namely neurological disorders. Dyslexia is a reading disorder that interferes with the ability to recognise letters, numbers and symbols or punctuation used in sentences, dictation, reading techniques, reading comprehension, and using language. Dyscalculia is a condition where it is difficult for a child to learn mathematics, such as arithmetic and is said to have dyscalculia. As a simple example, children have difficulty doing simple addition and subtraction and have difficulty remembering numbers. Dysgraphia is a learning disorder characterised by a person’s inability to write letters or words correctly. People with dysgraphia experience problems with their nervous system, which affect their fine motor skills, specifically the ability to write. Dyspraxia is a child’s disorder or immaturity in organising movements due to the inability of the brain to process information so that messages are not fully or correctly transmitted.

References


